

WHAT IS CLAIMED:

1 1. A method for use in wireless equipment, the method comprising the steps of:
2 receiving a signal;
3 processing the received signal to generate a Yamamoto-Itoh (*YI*) metric; and
4 providing a Bit-Error-Rate (*BER*) estimate for the received signal as a function of
5 the *YI* metric.

1 2. The method of claim 1 wherein the providing step further comprises the steps
2 of:
3 retrieving, from at least one look-up table stored in a memory, values for a
4 compensation factor as a function of a value of the generated *YI* metric and an initial *BER*
5 estimate as a function of the generated *YI* metric; and
6 modifying the initial *BER* estimate value with the retrieved compensation factor
7 value to provide the *BER* estimate.

1 3. A method for use in wireless equipment, the method comprising the steps of:
2 processing a received signal to provide at least one Yamamoto-Itoh (*YI*) metric
3 value over a time period;
4 selecting a compensation factor value as a function of the provided *YI* metric
5 value;
6 selecting an initial *BER* estimate value as a function of the provided *YI* metric
7 value; and
8 providing a Bit-Error-Rate (*BER*) estimate for the received signal as a function of
9 the initial *BER* estimate value and the selected compensation factor value.

1 4. The method of claim 3 wherein the providing step further includes the step of
2 multiplying the selected compensation factor value with the initial *BER* estimate value to
3 provide the *BER* estimate.

4 5. A method for use in wireless equipment, the method comprising the steps of:
5 processing a received signal to provide an initial *BER* estimate value for the

received signal;

modifying the initial *BER* estimate value for the received signal with a compensation factor value to provide a Bit-Error-Rate (*BER*) estimate for the received signal, wherein the compensation factor value is determined as a function of at least one Yamamoto Itoh (*YI*) metric value.

6. Apparatus for use in wireless equipment, the apparatus comprising:
a convolutional decoder for processing a received signal for use in determining at least one Yamamoto-Itoh (*YI*) metric value; and
a processor for providing a Bit-Error-Rate (*BER*) estimate for the received signal as a function of the at least one *YI* metric value.

7. The apparatus of claim 6 wherein the processor (a) retrieves, from at least one look-up table stored in a memory, a compensation factor value as a function of the at least one *YI* metric value, and an initial *BER* estimate value as a function of the at least one *YI* metric value, and (b) modifies the initial *BER* estimate value with the retrieved compensation factor value to provide the *BER* estimate.

8. The apparatus of claim 6 wherein the processor (a) determines a compensation factor value as a function of the at least one *YI* metric value, (b) determines an initial *BER* estimate value as a function of the at least one *YI* metric value, and (c) provides the *BER* estimate for the received signal as a function of the initial *BER* estimate value and the selected compensation factor value.

9. The apparatus of claim 8 wherein the processor multiplies the selected compensation factor value with the initial *BER* estimate value to provide the *BER* estimate.

10. A wireless receiver comprising:
a processor; and
a memory for storing a look-up table;
wherein the processor uses a Yamamoto-Itoh (*YI*) metric value as an index into the look-up table to retrieve an associated Bit-Error-Rate (*BER*) for a received signal.

- 1 11. A wireless receiver comprising:
- 2 a memory for storing a look-up table such that an index into the look-up table is a
- 3 Yamamoto-Itoh (*YI*) metric value for retrieving an initial Bit-Error-Rate (*BER*) estimate
- 4 value stored therein; and
- 5 a processor for modifying the initial *BER* value with a scale factor to provide a
- 6 Bit-Error-Rate (*BER*) estimate for a received signal.